THE MODERN ANGLER



he protection and conservation of marine resources has never been more important than it is today. The populations of many popular fish species have been

stressed, and in many cases the causes and solutions are complex. Saltwater recreational fishermen are a part of the process which impacts marine resources. Every time we head out on the water to

enjoy a day of fishing, we affect the marine environment.

Understanding the changing conditions which have affected marine resources, many a direct result of an increasing population and the development of natural areas along the coast and in the Chesapeake Bay watershed, is an important part of realizing what must be done to protect them for the future.

Coastal and estuarine water quality, in places like the Chesapeake Bay and its tributary rivers, has declined due to a myriad of actions which have taken place for decades. Oil and chemical spills, sewage outfalls and run-off, pesticide and fertilizer run-off from farms, industrial and urban pollution, and dredging have adversely affected water quality. Poor water quality can impact the ability of fish to reproduce, find a steady food supply, and survive the stress of life in the dynamic marine environment. The trend of declining water quality has been reversed in many areas in recent

years, but major improvement will be a long term process. In the interim, marine life must cope with water conditions which are less than optimal.

Habitat destruction has caused the loss of valuable spawning and nursery areas for many marine animals. Construction of bulkheads, fill operations, dredging and channelization, and substandard water quality have caused wetlands and submerged seagrass beds to disappear at alarming rates. This loss of habitat also contributes to declining water quality.

Finally, the demand for marine fishery resources has increased markedly. The numbers of recreational fishermen tripled from

ued to grow. Similarly, the demand for seafood in-20% creased from 1984-1994 and has continued to grow. This increase in demand for fishery resources coupled with the use of increasingly sophisticated and efficient gear has put a severe strain on many fishery resources. The result is marine fisheries which have become highly regulated, but in

1955 to 1985 and has contin-

many cases the management process cannot keep pace with the decline in fish stocks. The days of unregulated harvests of fish are ending with even recovering populations of fish needing continued regulatory protection to prevent overharvesting and additional fishery collapses. We must recognize the important part the recreational fishery plays in this complex fisheries management web; and, we must work to develop a personal commitment to resource conservation, while developing and adhering to a high standard of angling ethics.

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STRIPED BASS

The following are guidelines which the modern angler should consider incorporating into his daily fishing activities:

- 1. KNOW AND ABIDE BY ALL FISHERY REGULATIONS. Possession limits and size limits are established for one purpose to provide a minimum level of protection for fish stocks. Remember, possession limits are limits, not goals which must be achieved to have successful trips. Recreational fishermen should keep only the fish they intend to use and release the rest even when the limits established by regulation would allow the keeping of more fish.
- 2. REPORT VIOLATIONS OF FISHERY REGU-LATIONS. Do not tolerate illegal and irresponsible fishing practices. Voluntary support of fishery regulations is necessary because there are too few enforcement officers to cover the huge water area in Virginia.
- 3. PRACTICE CATCH AND RELEASE FISHING. Experience the pleasure of watching a healthy fish swim away. Studies have shown that released fish have an excellent chance of surviving, contributing to conservation and management efforts to protect our marine fish. Consider enhancing the personal satisfaction derived from releasing fish by becoming involved in a tagging program.
- 4. KNOW HOW TO PROPERLY HANDLE FISH. Releasing fish requires more than just "throwing fish back in the water". Know the best ways to handle fish, so they will not be injured, and use the proper tools to unhook your fish. A good source of information on handling fish is the brochure "Careful Catch" published by the Chesapeake Bay Foundation, (804) 780-1392 or (410) 268-8816.
- 5. ASSIST WITH FISHERIES MANAGEMENT. Support fisheries management and become involved in the process.

- Report any tagged fish you recapture, be willing to participate in creel and information surveys, and consider attending meetings and public hearings. Explore the opportunity to become involved with a recreational fishing organization which works for resource conservation.
- 6. DISPOSE OF ALL TRASH PROPERLY. Do not throw any trash into the water, save it for disposal onshore. Fishing line and other plastic items are particularly harmful, often entangling fish and other marine life. Plastic sandwich bags look like jellyfish and are eaten by sea turtles, which often die as a result. Oil, gasoline, antifreeze and cleaning products cause pollution and can be toxic to marine life.
- 7. PRACTICE SAFETY AFLOAT. Learn basic boating skills, have proper safety equipment on board, and know boating regulations. Provide assistance when a fellow boater or angler breaks down or gets into trouble.
- 8. SHOW RESPECT AND COURTESY TO OTHERS. Fishing is a fun, relaxing activity, as long as respect is accorded others. Treat other fishermen the way you want to be treated; don't crowd them or create conflicts with them. Similarly, respect other people using the waters (e.g. boaters, divers) and respect property rights of people living on the water. One of the most important things anyone can have is a good reputation, and fishermen should work to cultivate a good reputation and image.
- 9. SHARE THE SPORT OF FISHING WITH OTHERS. Fishing is a great way to spend time with family and friends. Share the gift of fish with others, especially youngsters. Lead by example, practice and share all of the ethical guidelines contained in this article.

USE A LANDING NET

One of the biggest problems faced by many anglers is how to get big fish from the water into a boat.

Traditional angling practices call for the use of a gaff, which is a large barbless steel hook attached to a pole with a handle. The gaff is stuck into the fish and used to hoist the fish aboard.

Serious injuries are inflicted upon fish when they are gaffed. Even "lip gaffing" a fish creates a very real injury and can lead to infection. With the proliferation of size limits and creel limits on saltwater fish necessitating the release of many fish, the expanding interest in catch-and-release fishing, and the growing number of tagging programs, many anglers have abandoned the use of gaffs. In some cases, such as the landing of striped bass in Virginia, the use of gaffs is no longer legal.

Landing nets are a good alternative to gaffs in most situations. Landing nets come in a variety of sizes and can accommodate most large fish, including the often volatile cobia. In fact, large fish landed with a net usually are more docile and easier to handle than fish which have been stuck with a gaff. This reduces the chances for injuries to the fish and the angler.

Landing fish with a net is relatively easy. The fish should be led head first into the net, and the hoop should be immediately lifted clear of the water. When attempting to land a large fish, do not lift the fish into the boat using the net handle. This may result in the handle bending or breaking, causing damage to the net and loss of the fish. When the hoop is lifted clear of the water, grab the edges of the hoop and lift the fish into the boat.

Control over a large fish often can be maintained if the net is not dropped on the deck in the cockpit of the boat. Rest the fish on the deck, while continuing to hold the sides of the hoop above the floor. This continues to suspend the fish within the confines of the net, while most the weight of the fish is resting on the deck. The fish can be unhooked while in the net, then the fish can be measured and released or placed in the fish box.

GET HOOKED ON CIRCLE HOOKS

The popularity of circle hooks has exploded in recent years, but they are not new inventions. The first circle hooks were fashioned from bone, wood and stone more than 10,000 years ago. Their modern usage began in the commercial longline fishery, which experienced



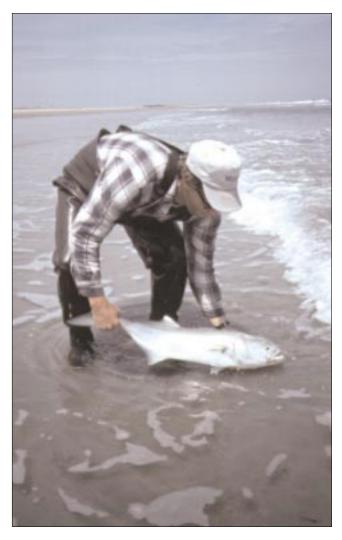
increased "hook-up" ratios and improved gear retention due to the tendency of the hooks to lodge in the corner of the mouth.

These same attributes stimulated interest among recreational fishermen more than fifteen years ago, but the popularity of circle hooks was limited by the lack of diversity in hook sizes and styles. Originally, only large sizes were available in thick, heavy gauge wire. Today, the diversity of circle hooks is seemingly endless, with sizes as small as #18 and as large as 20/0 and a variety of hook and wire styles.

So, what is a circle hook and how does it work? Circle hooks are fishing hooks with their points bent around until they are perpendicular (or nearly perpendicular) to the shank of the hook.

Typical fish hooks (now called "j-hooks" by many people) have points that are parallel to their shanks or just slightly curved inward. Circle hooks work by catching on exposed "edges" in the mouths of fish – typically the corners of the mouth or the lips. The fish

will swallow the bait (and hook), then, as the fish turns and/or swims away, the hook is pulled to the corner of the mouth where the point "catches" and the hook rotates automatically buring itself in the corner of the mouth or the lip. The unique curved shape of the hook with the point running perpendicular to the shank prevents the hook from catching on internal organs (such as the stomach), thus reducing the incidence of deeply hooked fish. Also, because of the way the hook catches and rotates into the lip or corner of the mouth, once a fish is hooked, it is almost impos-



sible for the hook to pull out during the fight. However, the hook is easily removed by the angler, by simply rotating the hook back out on the same path it caught and entered the fish's lip or corner of the mouth.

The most important aspect of using circle hooks is not to aggressively set the hook

when a fish strikes. Circles hooks are designed to catch on an edge of the fish's mouth as it swims off and aggressive hook setting will pull the hook free before it has an opportunity to catch and penetrate. The best hook setting is none at all; let the biting action of the fish and its own movement set the hook.

The conservation advantages of circle hooks are obvious. The rate of hooking fish in the lips or corners of the mouth approaches or exceeds 95% for "true" circle hooks. J-hooks, often lodge deeply in the gullet or stomach causing serious damage to vital organs, and can "tear" flesh and internal tissues by ripping out and resetting while an angler is fighting a fish. Use of circle hooks can greatly increase the survival rate for fish that are released. In addition, circle hooks are difficult for fish to dislodge once they are hooked, resulting in fewer lost fish. In certain species of fish, research also has shown a high rate of hooking fish (better than similar sized j-hooks), but in other species the results have been mixed.

The variety of styles and sizes of circle hooks becoming available is enabling anglers to better match their terminal gear to targeted species, which is improving the effectiveness of circle hooks. In addition, manufacturers have added several features to improve their versatility. However, some features, such offset points and less radical bend to the point (a "semi" circle hook), may offer only some of the advantages of a "true" circle hook. Remember the more offset to the hook point or the less radical the bend of the point, the more exposed the hook point will be, the less the hook will function as a circle hook, and the more often fish will be hooked deeply or "gut-hooked" in soft tissue or vital internal organs. Any design change that offers more exposure of the hook point will offer greater opportunities for the hook to catch places other than the lips or corners of the mouth and is likely to cause more physical harm to the fish.

The bottom line is circle hooks are another tool anglers have available to help them become better fishermen and better protectors of their saltwater fishery resources. They may not be the best choice for every fishing situation, but many anglers are finding they prefer to use circle hooks for most of their fishing activities.